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ABSTRACT

Actual and potential relationships between evaluators and linkers--curriculum or management specialists who disseminate the products of evaluation to school districts--were explored. Evaluation and linkage evolved as distinct educational occupations, stimulated by federal involvement in research, development, and school improvement since the early 1960's. Early evaluation models were dominated by mainstream causally-oriented approaches, and dissemination focused on marketing and installing replicable products. Current models extend evaluators' role to needs assessment, and assistance with program planning and implementation; the linkers' role extends to continuing assessment of program outcomes. Role perception surveys were conducted with 21 linkers from three federal programs (National Diffusion Network, Research and Development Utilization, and Capacity Building) and with 263 school district evaluation units. Linkers saw themselves as primarily involved with dissemination through needs assessment, program planning, and implementation; evaluators were primarily involved with program assessment, mainly testing. Both groups reported an uncertain relationship with school administrators, little feedback on the results of their work, and minimal contact with each other. Both may remain as strangers, or they may be occasional task-specific consultants for another; eventually, linkers could be taught evaluation skills. (CP)

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PERSPECTIVES ON EVALUATION, LINKAGE & PROGRAM IMPROVEMENT

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Introduction

For the past twenty years elementary and secondary school improvement, variously titled, has been an aim of academicians and state and federal policymakers alike, stimulated by general feelings on the part of the public that schools were not performing their jobs. Rapid social and economic changes affecting family structures, women, jobs; high mobility; increasing political consciousness on the part of many groups; and many other societal phenomena combined into a pervasive sense that schools needed re-definition, re-structuring, re-forming. The precise definitions of the problem and well articulated images of successful solutions are both widely divergent and hotly debated.

Immediately post-Sputnik, in 1957, the federal focus for school improvement was on the development of new curricula; new math, new science; new social studies. Within several years it became apparent to school personnel, policymakers and researchers that new curricula by themselves were insufficient to improve substantially either the operations or the effectiveness of schools.

The Elementary and Secondary Education Act of 1965 initiated three alternative school improvement thrusts: the first identified targeted groups of pupils needing special attention, as in Titles I and VII. The second attempted to improve the knowledge base from which schools operated by institutionalizing research and development within labs and centers. The third stimulated the creation of local programs through Title III.

Recently, each of these triple thrusts has been augmented by other federal and state statutes creating special educational services for other targeted populations, e.g., preschool, handicapped, gifted. Research

has been programmatically oriented so as to produce school-relevant applications in subject areas such as basic skills. Development has become more sophisticated in terms of producing and marketing validated and replicable products. Various dissemination modes - marketing, consortia, linking agents - have been conceptualized and funded.

The past fifteen years of federal involvement in education has seen the creation of new conceptual roles and functions to support the efforts of teachers and principals to improve the schools. For example, federal support of applied research and development activities in education during the 60's has resulted in an increasing demand for evaluators and disseminators during the 70's (see Sieber, 1974). These individuals are now fulfilling some of the tasks related to the process of educational change that have been stimulated by research and development efforts. The dominant conceptualization of the change process during the 1960's envisaged a sequential chain - starting with the production of new knowledge by researchers, the incorporation of that knowledge into products or programs by developers, the evaluation of those products or programs by evaluators, and their dissemination to schools by disseminators. Funding during the 1960's and early 70's supported the first three stages --research, development and evaluation. Within the past few years increasing attention is being paid to the last stage - dissemination activities. Originally, dissemination was thought of in traditional marketing terms, that is, a demand for newly created R&D products, often attractively packaged by publishers, had to be stimulated. Schools must be convinced of their needs for these new products, either through scientific evidence that the products "worked" elsewhere, or through more traditional

advertising. Successful dissemination was measured by sales figures. Recently, the federal perspective has shifted. Rather than being viewed as customers who must be sold, schools and school districts are regarded as clients who must be serviced. Disseminators, that is, middlemen allied with the producers of products and services have transmuted into linkers, that is, middlemen allied with the consumers of products and services. Now, linkers and evaluators, at least in principle, share a common service orientation towards educational administrators.

The individuals performing within both of these newly-expanded occupational roles have, for the most part, come to their positions from other disciplines. Educational evaluators, on the whole, have had their training in basic research methodology, statistics, psychometrics, behavioral psychology. Linkers, on the other hand, are likely to have been teachers, administrators or curriculum specialists with ties to content areas or to the disciplines of organizational development or management.

Currently, both evaluator and linker occupations seem to be in search of professionalization. They seem to be looking for a claim to "special esoteric competence." Future recruitment, training, monitoring and standard setting will depend on whether attempts at definition of roles produce a coherent set of activities to be performed by a single individual; or evolve into functions which can be divided among roles already institutionalized within school settings. Of the two fields, evaluation is further along in explicating its theory and practice. Fifteen years of sobering experience have turned evaluators towards a recognition of the complexity of the school setting and its decision-making processes. An earlier view that evaluation is a one-shot activity narrowly focused on student

achievement is being modified in favor of a view that evaluation is an on-going service, providing information of use to clients on a range of implementation and outcome questions. There is now considerable support for Provus' position (1971) that

> "... Both administrators and researchers must see evaluation as a continuous information-management process which serves program-improvement as well as program-assessment purposes. The complexity and concomitant high cost of effective evaluation must be recognized as a necessary management expense somewhat similar to high insurance premiums."

This program improvement orientation for evaluation with its concomitant management overtones implies that an evaluator should have not only technical but other skills that enable him/her to be an "information linker," "program facilitator," "process enabler."

These particular skills are listed by Crandall (1977) as among those also essential to the role of linking agent. Other linking agent skills on his list are: "resource arranger," "technical assister," "data feedbacker," "capacity builder." In discussing the specific substance for these linker roles he includes the tasks of evaluation and documentation: --"producing data useful to the real direction of the project effort; ... providing for some sort of summative or impact assessment of outcomes; and documenting the work effort" (page 253).

Is there any significance to evaluators of the emergence of linkers? Is there any significance to linkers of the existence of evaluators? How do linkers and evaluators interact with each other and with the administrator they are both trying to serve? This triad of questions provides the focus of this paper which looks at the range of relationships that linkers might have with evaluators already in the educational establishment. This paper could have gone on to examine linker relationships

with other individuals, such as staff development specialists, curriculum specialists or educational planners; but now we will explore only the actual and potential relationships --extending from nonexistent to redundant-- between evaluators and linkers. For the purposes of this discussion, we are defining as evaluators the limited set of individuals who work within school districts as evaluators and as linkers, that limited set of individuals who are designated as linkers due to their participation in federal dissemination efforts - the National Diffusion Network (NDN), the Research & Development Utilization project, and the Capability Building (CB) project. First, however, we will briefly sketch the conceptual development of both fields indicating how and where we believe them to be different and how and where we believe them to be convergent.

BACKGROUND: EVALUATION & LINKAGE

The rapid emergence in recent years of evaluation and linkage was stimulated by federal efforts to promote research, development and school improvement activities. Program evaluation --in its current incarnation-- probably dates to the early 1960's; linkage to the early 1970's. However, neither field was created simply by legislative fiat. Indeed, both have a long history of conceptual development.

Early Evaluation Activities

The beginnings of formal program evaluation date back to the turn of the century and the growth of the public service movement. As the number of health and welfare programs began to grow, so did the administrative and legislative concern with judging the worth of these programs, especially in light of demands to justify expenditures (Anderson et al, 1973).

These early program evaluations, however, were merely countings and recountings of services that were delivered. Critics' demands to justify school spending, pressures to apply industrial efficiency procedures to the schools, and the mandate of the Federal Bureau of Education (now the Office of Education) to "show the condition and progress of education," resulted in their extension to educational programs.

Between 1910 and 1920, a number of large school districts established research offices which conducted school surveys to answer questions about the efficiency of the schools, such as: "What return (in terms of numbers of students educated) is the community getting from its investment in the schools? How can this investment be made to yield greater returns?" (Callahan, 1962). Focusing on inputs and processes such as fiscal information and attendance statistics, the surveys supplied little assessment of outcomes (Anderson et al, 1973).

In the 1930's the character of educational evaluation was substantially changed by two events. First, by this time accrediting agencies had gained a stronghold in education, and their ascendance marked the beginning of at least a "quasi-evaluation" process in education (Worthen & Sanders, 1973). Secondly, in the well-known Eight Year Study, Ralph Tyler employed an approach to evaluation which has influenced the design of evaluation studies for 30 years. Labelled the goal attainment or behavioral objectives approach, it determined the congruence between student performance and program objectives which were stated in terms of measurable changes in student behavior. This was a substantial change from the strategies employed in the 1920's. For the first time, evaluation focused on the relationship between student learning and educational programs (Tyler, 1942, 1950). Employed extensively in the 1940's to assess the

effectiveness of wartime training programs in bringing about prespecified changes in soldiers' behavior, the Tylerian approach to evaluation is still prominent. It is used in the National Assessment of Educational Progress and is reflected in the writings of W. James Popham (1975) and Robert H. Hammond (1973).

Emergence of Educational Evaluation as a Discipline

Beginning in the 1950's several events accelerated the emergence of educational evaluation as a substantive field: nationwide curriculum projects, such as PSSC Physics (NSF) and Project Social Studies (USOE) and the social legislation of the 1960's, especially the 1965 Elementary & Secondary Education Act, which called for program evaluation in order to ensure accountability.

During the 1960's and early 1970's experience in applying evaluation concepts and techniques was accumulated in several large-scale policy studies. These included the Westinghouse evaluation of Project TALENT (Flanagan, 1964), the Coleman Report (Coleman et al, 1966), and Head Start (Cicirelli et al, 1969).

During its period of rapid growth in the 1960's, evaluation was based on several assumptions: that an evaluator who was generally external to a program could apply social science research designs and instruments to determine the effectiveness of a single program, at one point in time, thereby providing policymakers with an objective basis for making decisions about allocating educational resources. Generally, the evaluator was expected to have little impact on program planning or on the operation of the program. He or she frequently was called in only after a program had started or, in some cases, after it had ended. Evaluations based on such

assumptions have recently been labeled the mainstream view of evaluation (Ross & Cronbach, 1976).

The utility of evaluations designed in accordance with this mainstream view is a source of dissatisfaction (Rossi, 1972; Rossi & Williams, 1972; Guttentag, 1975; Ross & Cronbach, 1976; Parlett & Hamilton, 1976). Responding to criticism about their inability to deal with local contexts, their failure to acknowledge the diverse questions posed by competing interest groups, and their denial of program changes during implementation, the evaluators have been busily reconceptualizing their field.

In the 1960's, Cronbach (1963) and Suchman (1967) suggested that evaluation be viewed as a continuous process of assessment to aid program improvement instead of a process which assigned a pass or fail to a program. Scriven (1967) defined educational evaluation as judging the merit of an educational practice for producers (formative evaluation) and consumers (summative evaluation). Similarly, Stake (1967) discussed as major activities of educational evaluation the describing and judging of the merits of a program. In his countenance model Stake proposed that the evaluator interpret judgmental data from various audiences included in and affected by the program, make judgments himself and attend to what was intended. The decision facilitation models of the early 1970's, such as the early CSE model proposed by Marvin Aliin (1969) and Stufflebeam's CIPP model (1971), emphasized the provision of relevant information by the evaluator to program personnel throughout the life of a program. They consider evaluation to be a feedback mechanism where the evaluator is an objective third party who services program management.

Ross & Cronbach (1976) have contrasted mainstream evaluation models with an "alternative and extended" view of evaluation. Here, evaluation

is considered to be an ongoing internal component of the program itself focusing on the interactions among individuals, the effects of the program on the school institution, as well as looking at student learning outcomes. The evaluator uses an array of procedures to describe what is happening, and his reports are considered updates in the system's picture of itself. Stake's T-City Evaluation (Stake & Gjerde, 1974), the OE-BEH-sponsored judicial evaluation of the Individualized Education Plan (IEP) and requirements of PL 94-142 are examples of major studies employing a range of quantitative and qualitative methodologies.

Names given to the newer approaches include: judicial (Wolf, 1975), adversary evaluation (Owens, 1973; Levine, 1974), transactional evaluation (Rippey, 1973), and illuminative evaluation (Parlett & Hamilton, 1976).

As this brief look suggests, educational evaluation at the conceptual level is being fertilized by other disciplines and is enlarging its repertoire of concerns and techniques. The mainstream view of evaluation which looks for causal relationships between a limited set of program components and a small number of measurable student outcomes is being augmented by an alternative view of evaluation which looks for ways of conceptualizing and describing the complex interactions of events occurring within a given setting.

Both of these views are seen as methods by which schooling can be improved. Although evaluation information is gathered for many different clients - among them administrators, teachers, parents, policymakers - the ultimate hope of evaluators is that evaluation data will describe, explain or predict educational phenomena in such a way as to beneficially affect student learning.

The same general aim informs the work of linkage agents. But, whereas evaluators respond to the desire of school personnel and policymakers to understand the specific effects of alternative educational programs, linkers respond to the need of school personnel and policymakers to acquire and utilize new information, including that produced by evaluators. Linkage agents have emerged as middlemen to facilitate the increasingly complex relationships among those engaged in the American educational enterprise.

Emergence of the Educational Linking Function

Before the turn of this century, the country's school system consisted of relatively autonomous local schools loosely organized within districts subject to state rather than federal authority. Without any central agency or communication system, there was little exchange of information among schools (Office of Education, 1969). Nor was there much communication between university researchers and school practitioners.

Some changes in the educational picture of locally autonomous and relatively isolated school units occurred during the early 1930's. Results from the university research laboratories had begun to filter down to the schools, there was increasing interest in new materials and techniques, and more attempts to utilize them (National Institute of Education, 1976). Evaluation efforts shifted from survey research to an examination of the impact of curriculum on goals and student behavior (Tyler, 1950), and produced judgments about the effect of new programs. These stimulated interest in the dissemination of new workable programs. It was also at this time that consortiums, called school study councils, were formed to promote communications between school districts.

With World War II came instructional technology and the advances in evaluation previously described. Concurrently, there was a growing awareness of the need for a coherent dissemination system for those educational innovations identified as effective by these evaluations. For example, the National Science Foundation (NSF) became involved in educational improvement in the areas of math and science instruction. An investigation of the situation in the nation's schools' science programs found little correspondence between new knowledge in the field and information contained in textbooks. It was becoming clear that massive dissemination efforts were needed to update instruction and materials in the schools. Title VII-B of the 1958 National Defense Education Act (NDEA) contained the first dissemination authority given to the Commissioner of Education. This title introduced a wide range of dissemination responsibilities including dissemination of information about new educational media, SEA and LEA research, studies about utilization, materials to increase the use of educational products, and in-person assistance to SEA, LEA, and higher institutions in use of new instructional media (Butler & Paisley, 1978). The response to this act was widespread and included many dissemination projects by the federal government including the start of the Educational Resources Information Center (ERIC), the first R & D Center (Pittsburgh), and the plan for the other regional laboratories.

Title IV of the Elementary and Secondary Act -ESEA- of 1965 established the Division of Information Technology and Dissemination (DITD).

The dissemination strategies utilized by the early federal government sponsored projects included printed material, ERIC information, replicable R & D products, and audiovisual materials. Evaluations of

these strategies have made it clear that they are generally unsuccessful. The lack of impact of these methods is documented by a survey completed by the Bureau of Social Science Research in 1968-1969. They found, among other things, that school administrators did not seem to be aware of connections between the school system operations and educational research activities. Similarly, 64% of the respondents (n=342) gave no response when asked to identify any results of educational R & D having influence on school practices in the country. Having the information available in printed form did not result in schools obtaining the information, and obtaining the information did not result in its use. The question for the 70's then, had become, "Now that we have an enormous store of good products and techniques, how do we efficiently get them into the schools and in a form that will be utilized?"

We now know that dissemination of an innovation takes more than the marketing of new information or products. There is evidence to suggest that intermediaries are needed between products and schools. The presence of an individual or agency through the adoption process may promote greater understanding, confidence and support toward the innovation (Carlson, 1965; Havelock, 1969; Gross, Giaquinta & Bernstein, 1971; Emrick & Peterson, 1978). Federal projects of the last few years have reflected this belief in the importance of individuals who act as change agents (e.g., Pilot State Dissemination Project, State Capacity-Building Project, R & D Utilization Program, National Diffusion Network).

The evolution of thinking about dissemination seems to parallel that which has occurred in evaluation. At a time in the 60's when evaluation was dominated by mainstream causally-oriented approaches, dissemination

attention was focused on the marketing and installation of replicable R & D products. The later decision facilitation models of evaluation seem analogous to the problem-solving model of change (Havelock, 1969) in that a user problem is diagnosed, solution chosen, implemented and, if effective, institutionalized. Current evaluation models that emphasize description of relationships among program components and the new linkage models of dissemination represent a new emphasis on the implementation of an innovation and on the context within which the innovation is placed.

From the preceding review several general observations can be summarized:

- Evaluation and linkage are sets of functions which may evolve into distinctive educational occupations. They are energized and financed, for the most part, by federal involvement in education.
- At the conceptual level, there appears to be growing acknowledgement in both fields of the complexities of educational change in general and program implementation in particular. Linkers now recognize that their role is not limited to "before adoption" tasks but should include sustained attention to program processes and outcomes. Evaluators now recognize that their role is not limited to measuring student outcomes on stated program objectives but should extend to conducting needs assessments, assisting in program and evaluation planning, and providing technical assistance in program implementation.

A PARTIAL VIEW OF THE CURRENT SITUATION: LINKERS AND EVALUATORS

In this section, we will describe some of the existing relationship between evaluators and linkers. The data base for this description comes from two sources. The information about linker projects and linkers was gathered through telephone conversations with linkers who are participating in three federally-funded dissemination projects in many states. Information about evaluators comes from a national survey of 263 research, development and evaluation units (Lyon, 1978) instituted in 1978 by the Center for the Study of Evaluation (CSE). CSE has collected information to describe tasks performed by evaluators who work in research, development and evaluation units in school districts, specifically the extent to which evaluators are: identifying educational goals or objectives, assisting in the selection of instructional programs, assessing the results of educational programs, modifying programs using evaluation results, determining pupil satisfaction with programs, comparing costs and benefits of alternate instructional programs.

A word about the sample. In conducting both studies, CSE experienced great difficulty in identifying the respondent population of evaluators and of linkers. There exist no single comprehensive lists from school district research, development and evaluation units. Nor is there a listing of linkers, or linker offices. Since there was no formal precedent for locating linkers, we contacted individuals who were designated as linkers within three federally-funded dissemination programs intended to improve educational programs through dissemination activities.

LINKER SURVEY

Three federal programs employing persons designated as linkers are

the Capacity Building (CB) project, the National Diffusion Network (NDN) and the R & D Utilization (RDU) project.

The Capacity Building (CB) program was funded by the National Institute of Education (NIE) in 1975 to improve educational practice by encouraging state education agencies (SEAs) to develop a comprehensive dissemination capacity. Most of the 23 CB projects funded by 1977 are doing information searches for material and human resources. Clients are generally serviced by mail or phone. In only four projects in the CB program are there individuals that fit our definition of linker, that is, who do field work at the school level. A linker from each of these projects was contacted.

The R & D Utilization program, created in 1976, was also funded by NIE to provide services to schools to implement and use existing Research and Development (R & D) outcomes. Each of the seven project directors of the RDU program has a staff which included linkers. One linker from each of the seven projects was contacted.

The National Diffusion Network was created in 1974 and is funded by the United States Office of Education (USOE) to facilitate the widespread implementation of successful education practices developed with the support of federal funds.

The NDN includes two roles assumed by separate individuals who jointly do "linkage" --State Facilitators and Developer Demonstrators. This study sampled only State Facilitators (SFs) -- those individuals who are involved with local schools in a single state and who coordinate for them the presentation of Developer-Disseminator projects.

Each of these three federally-funded programs - CB, RDU, NDN - includes individuals who might be termed linkers. In two of the

projects, CB and NDN, a linkage system involving interpersonal communication is specifically required by the federal guidelines for the projects. The solicitation document for the RDU project did not include any reference to linking agents, but these persons have emerged in all seven projects as one of the ways to link schools and supporting agencies.

The CSE telephone survey concerned with linkers' activities was conducted with a sample of individuals employed in the three federally-funded dissemination programs described above. The sample was limited to individuals who do field work at the local school level and are engaged in tasks that could be categorized under needs assessment, program planning, and/or evaluation.

We interviewed individuals as follows:

Table 1

Number of Linkers per Federal Program

CB	RDU	NDN
4	7	10

To identify linkers as respondents for our informal telephone survey, all project directors in the CB and RDU projects and about one-third of the State Facilitators in the NDN project were contacted by telephone. From these conversations we determined whether the project included persons that fit our definition of linker, i.e., someone who worked in the field, at the local district or school level, on program improvement activities beyond simply providing information. In addition, to be regarded as a linker for our study, the individual had to be at least partially funded by the federal program. If the project included a linker, we then gathered more

information, including the size of the project and interaction of the project with other federal or state dissemination programs. If the project director was the sole representative of the project, as sometimes occurred in the NDN project, this person was questioned about his/her activities. If the project director was manager of a staff, a request was made to speak to a person performing as a linker, according to our definition.

Findings of Linker Survey

This survey was conducted in order to obtain background information that would give us a profile of linkers, and the extent of their activities relating to evaluating the programs they help to disseminate. In no way was this intended to be a systematic documentation of linker functions, but rather an informal overview of linker work specifically as it related to evaluation activities.

We were most concerned with linker relationships to evaluators - i.e., how does the linker see an evaluator fitting into the project, if at all; does the linker have any contact with an evaluator, if any are available; which tasks should be done by an evaluator, and what is the linker's perception of his own role in relation to an evaluator's? In order to more fully understand our respondents' answers we also asked about general background and general job characteristics: Where is the linker located (state department, intermediate agency, LEA); who are the clients (principals, teachers, curriculum coordinators); and what is the mode of contact with the clients (phone, visits)?

The results of the linker survey will be summarized and then compared with those from the CSE study of 263 district evaluation units.*

Summary of Linker Survey

Project diversity. The information given us by our twenty-one respondents reflects great variety among linkers in general job characteristics, background, tasks, and relationships with evaluators. Even where distinctive organizational requirements exist within the program, there are still variations among projects within that program. For example, the RDU program is set up so that each linker is to work with a specific number of schools or districts. This situation is in contrast with the CB and NDN programs in which linkers may work with any number of schools within a state. Yet there is wide variation in the number of schools serviced by individual linkers in the RDU program. Projects within all of the three programs seem unique, operating in response to factors such as project size, funding level, management system, amount of interaction with other state and federal dissemination programs, and number of clients.

Common linker tasks. However, regardless of the diversity between individual projects there are some general observations that can be made. It appears that linkers, whatever their funding source, are doing some or all of a set of tasks defined by a common vocabulary. They are involved in a sequence that begins with needs assessment --either assisting in its completion or reviewing the results of a school-initiated or state-mandated needs assessment-- and continues through the acquisition

*More complete information on linker activities available from the authors and in a soon-to-be-published article.

of information about new programs, planning, training, and installation of the program.

The similarities in the set of linker activities may be explained by the restricted definition of linker we used in this survey. By limiting the sample to those individuals who worked with local schools in a capacity other than resource identification, this survey eliminated some persons identified by project directors as linkers (e.g., ERIC Clearinghouse personnel, librarians). Many projects in the CB program, for example, are primarily engaged in building program information skills throughout the state. Therefore, most tasks in these projects are limited to those of Paisley's "resource finders" and were eliminated from this survey.

Another explanation for the common sequence of tasks may be found by examining federal dissemination policy. It appears that current theories of school improvement support a systematic approach of identifying needs, planning and installing a program to suit these needs, and then evaluating the implementation and impact of the program. These elements must be specified in proposals for funding. Therefore, it is not surprising to find these same activities are reported by persons who are commissioned to assist in dissemination and school improvement projects. However, commonalities among tasks disappear beyond the program installation stage. Once a school site has installed a program, subsequent linker contact with the school ranges from no contact to intense involvement in technical assistance or monitoring.

Limited Linker Involvement in Evaluation. Linkers do not usually do evaluation of implementation procedures and program effects. Most agree it is an activity that should be done and belongs in the sequence of

tasks leading to school improvement. Yet few seem to be involved in this activity. The reasons vary. They include:

1) Some projects have only recently been installed in schools. Evaluation is premature.

2) Most linkers do not have the skills or resources or incentives to conduct evaluations.

3) Some linker staffs are too small and/or must service two many clients. Linkers do not have the time to conduct evaluations.

4) Several linkers said they would help if asked but that they really didn't regard evaluation as part of their job and the schools or someone else took care of it. In the NDN projects, for example, many State Facilitators believed that the Developer Demonstrator was responsible for seeing that implementation and impact were evaluated using the assessment measures accompanying the innovation.

Linkers do not usually work with evaluators. The relationship of linkers to evaluators appears, in all three programs, to be very limited. Most interactions involve a linker making the initial contact with an evaluator on behalf of the school. The evaluator may be from a district office, state department, or an outside consultant. Once the evaluator has been contacted, the linker usually has no further involvement. No linker reported working with an evaluator on any evaluation activity.

For the majority of projects there was no contact with an evaluator. The reasons given for this include:

1) Lack of evaluators. Regardless of the needs or attitudes of the school and/or linker, often evaluators were not available.

2) Negative attitudes toward evaluators by either linker or the school, or an image that what evaluators can or will do involves only testing.

3) Lack of funding to hire evaluators. Some projects include funding for an evaluation by an evaluator, e.g., NDN projects funded out of Title IV, but most do not have specific funds for this purpose.

4) Evaluation is the responsibility of someone other than an evaluator, e.g., the D/D in the NDN project, the schools in some RDU projects.

In summary, using Crandall's front-end/back-end dimensions of linker activities it appears that most linkers are engaged in "front-end" activities; a small number may be involved, about to be involved, or are concerned about, "back-end" activities.

DISTRICT EVALUATION UNIT STUDY

CSE's national survey of the approximately 400 school districts that had centralized research, development and evaluation (RD&E) yielded a return of 263 questionnaires. The survey covered a large number of items, but the findings of interest are those related directly to the evaluation units' activities. The reported activities were sorted into three categories:

1) Needs assessment and program planning. This category

included identifying/appraising educational goals or objectives, comparing costs/benefits of alternate instructional programs, and assisting in the selection of instructional programs. While most of the units reported some activity in this area, only 14% of the respondents ranked this group of activities as one of the three most frequently done by the evaluation unit.

2) Implementation. This activity was described as checking that program implementation conforms to program specifications. This type of activity was ranked in frequency as one, two or three by only 20% of the evaluation units. Again, most respondents checked this item as an activity done some of the time but it is not a priority activity for most evaluation units.

3) Program assessment. This category includes the activities of assessing the results or worth of instructional programs, and assessing student achievement of objectives. These activities were ranked as among the top three most frequently done by 70% of the districts.

In addition, the activities which ranked in the top three for development activities were development of test materials and development of other evaluation instruments. This is in contrast to lower rankings for such activities as development of instructional programs and adaptation of instructional programs to meet local needs.

The results showed that evaluation units are engaged in a number of different activities. From a list of ten activities an average of 6.7 were checked by respondents as being done some of the time. However,

rankings of the tasks showed that most evaluation units are focusing on only a few activities. Program assessment seems to account for much of an evaluation unit's time. The two activities included in this category, assessing the results or worth of instructional programs, and assessing student achievement of objectives, were each ranked as their primary activity by over 30% of the evaluation units.

These findings, in conjunction with the rankings of development tasks, indicate that evaluation units are chiefly engaged in program assessment activities.

EVALUATORS AND LINKERS: ELEMENTS OF INTEREST FOR SCHOOL IMPROVEMENT

It is always dangerous to speculate with little knowledge -- and it is only a little knowledge on which we are presently relying. Our informal survey of twenty-one linkers was not a representative sample - nor did we ask our informants a list of structured questions for the purpose of comparing their answers across programs. Rather, our conversations were exploratory, aimed at familiarizing ourselves with the world of linkers. Our extrapolation from the CSE data concerning the activities of evaluators in evaluation units was made after the data were obtained. We did not participate in the design of the survey, and therefore did not have information about evaluators' awareness of linkers, of linking activities, or of projects installed in schools or districts as a result of dissemination efforts. Additionally, the two groups of individuals we focused our attention on may not give us a complete picture of the relationships between all linkers and all evaluators. Our linkers were external to the school system - that is, they were part of federally-funded dissemination

efforts. Our evaluators were internal to the school system, that is, they were part of the administrative structure of the district. If we have only a modest amount of information about the relationship or lack of relationship between internal evaluators and external linkers, we have, in this study, no information at all about the relationship between internal evaluators and internal linkers, or external evaluators and external linkers.*

Nonetheless, a few observations are in order. Both our evaluator and our linker respondents report that their largest client groups are teachers and principals. This may be interpreted to mean that the focus for both groups appears to be the local school level.

The services which linkers and evaluators provide for their clients are quite different. Linkers assist school personnel with discrete changes in their school programs. Evaluation activities may or may not be connected with particular programs. Linkers see themselves primarily involved with dissemination; evaluators see themselves primarily involved with testing. Yet both can be seen as part of a more general school improvement or school change process. This process includes needs assessment and program planning at one end, continues through training and program implementation, and then moves towards program assessment.

It appears from our data that most linkers are currently engaged in "front-end" activities, although some are involved, about to be involved, or concerned about "back-end" activities. In contrast, district evaluation units appear to be primarily engaged in "back-end"

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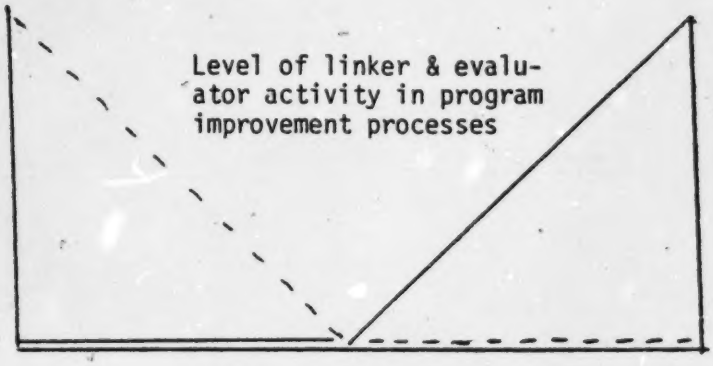
*We are indebted to Paul Hood for this point made in personal correspondence, December 1978.

activities, especially testing, with some small amounts of "front-end" activities reported by a sprinkling of units.

The two groups are coming from different ends of the program improvement continuum as illustrated in the figure below.



needs assessment/ information sharing program planning training

implementation/ program monitoring

program assessment/ testing

--- linkers
___ evaluators

Both evaluators and linkers appear to be seeking professional definition and organizational status within school districts, intermediate agencies and state bureaucracies. They seem to share two common frustrations: lack of clear-cut and recognized rules in relation to school administrators, and uncertainty about the utility of their work. But these two groups of individuals are different in important ways. Evaluators are specialists with a small repertoire of highly-developed technical skills; linkers are generalists with a large repertoire of non-technical interpersonal and resource-related skills. Evaluators are a recognized specialization within educational research and doctoral programs in at least forty universities (Phi Delta Kappan study, 1976).

There is, at present, no doctoral program for linkers.

What are the potential relationships that evaluators --especially those who could observe formative evaluation responsibilities-- and linkers might have? How might each type of relationship affect the frustrations of evaluators and linkers as well as their power to facilitate the processes of educational improvement? One can speculate about alternative relationships on a scale from distant to intimate.

Evaluators and linkers might be strangers to one another. In this relationship, each occupation would independently relate to program administrators. Each would perform his/her job without formal knowledge of the activities or skills possessed by the other. Formal coordination reporting channels would not exist. Project administrative arrangements within many districts and within many federally-funded projects support this nonrelationship.

Or, evaluators and linkers might be technical consultants for one another. Linkers or administrators would call on evaluators to provide assistance in particular areas such as instrument selection of development, evaluation design, data analysis. Evaluators, in turn, might call on linkers to disseminate the results of particular evaluations. Linkers might perform the specific function of helping to translate evaluation data into issues for discussions or recommendations concerning programs that teachers and administrators could act upon. The relationship here would be intermittent, specific and task oriented.

Or, evaluators and linkers might be partners for one another. Since both are concerned with general activities such as educational planning, implementation and assessment, and with specific tasks such as needs assessment, identification and selection of program, adoption or

adaptation of programs, program implementation monitoring, pupil progress, teacher and parent satisfactors, and program outcomes, they might apply their unique skills in a coordinated and ongoing fashion to school improvement. At a minimum, such a partnership would entail awareness by each group of the full range of capabilities of the other. Some administrative arrangements in terms of coordinating communication, reporting lines, budgeting and scheduling would have to occur. The relationship would be interactive and continuous. Evaluators and linkers could be regarded as sharing a common set of functions. Which particular role title the person assuming those functions would have would depend on the particular situation.

To spell out what this suggestion might involve: Let us assume that school, with federal or state money to spend on some form of instructional improvement organizes itself so as to initiate, plan, carry out, assess and recycle a variety of curricular instructional and organizational changes. The administrator's role is to manage the change process supported by one or more individuals with a variety of skills.

A linker whose first-order skills are in the areas of "resource finder" and "process helper" might draw on those techniques developed within the field of evaluation relating to activities such as needs assessment. Additionally, the linker might insure that evaluation information about any program being considered for adoption or adaptation within the school is carefully examined, and might also insist that an evaluation plan be developed at the same time as the program itself is planned. This would ensure that the resources for acquiring the needed documentation and outcome measures are anticipated; that the requirements of an acceptable evaluation design are met; and that money and time are reserved for both conducting the evaluation and acting upon its recommendations.

On the other hand, an evaluator whose first-order skills included technical expertise in test selection and interpretation would find that his or her contribution to the program improvement process would be enhanced through knowledge of problem-solving techniques, conflict-management techniques, and understandings of group processes, decision making and communication.

It is only a short step from this notion that linkers and evaluators can carry out aspects of one another's job description to a suggestion that evaluators be trained to function as linkers and linkers be trained to function as evaluators. The merger of linker and evaluator into a compleat change agent is difficult to imagine at this time since individuals in both occupations seem, simultaneously, overextended and underequipped for their present role. Nonetheless, there is, from some quarters, a push to teach linkers evaluation skills so that they can perform better within their presently defined roles; and to sensitize evaluators to the idea that the nontechnical aspects of their practice of evaluation are as professionally important as the technical.

In short, it would seem that a comprehensive school improvement process requires someone with "front-end" skills who can link potential adopters with existing knowledge that meets their needs; and someone with "back-end" skills who can use data to determine how well that existing knowledge, once implemented, is in fact improving teaching and learning. School improvement seems to be continuous and interactive - a sequence that an administrator cannot manage without adequate support. It is clear that such support can be analyzed in terms of functions that trained individuals can fulfill. Whether and how these functions can be best accomplished by individuals currently identified either as linkers or as evaluators is not yet clear.

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